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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,607	05/02/2001	Paul A. Youngblood	ERT-024-2	5992

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EXAMINER

BRIER, JEFFERY A

ART UNIT	PAPER NUMBER
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2672

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DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/848,607

Applicant(s)

YOUNGBLOOD ET AL.

Examiner

Jeffery A. Brier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4, 6, and 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by DeNies, U.S. Patent Application Publication No. 2002/0021353.

Claim 1:

DeNies teaches a panoramic movie system where bitmaps are transmitted by MPEG from a server to a client where a user pans a view window over the sequential bitmaps.

Claim 2:

360 degrees is taught at paragraph 0022.

Claim 4:

DeNies uses Real Player.

Claim 6:

Panoramic images of cylindrical shape are incorporated by reference at paragraph 0019. See paragraphs 0007, 0046 and 0079 of 2002/0063709 from 09/310,715.

Claim 7:

The downloaded video streams are self contained.

Claim 8:

360 degrees is taught at paragraph 0022. The claim does not define overlap portion, thus, the guard band in the vertical direction of figure 2A-2D meets the claimed overlap portion.

Claim 9:

According to paragraph 0022 the bitmap could be 360 degrees. Thus each square is 36 degrees. In the vertical direction there are 2 squares of guard band which is equivalent to 72 degrees. Since this claim is an open ended comprising claim then the guard band meets this limitation since the guard band does have 40 degrees of coverage.

Claim 10:

The guard band of 8 blocks is greater than the view window of 1 block.

4. Claims 1-4, 6-14 and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto, U.S. Patent No. 6,567,086.

Figure 5 illustrates and column 4 lines 28-46 describes overlapping portions of the panoramic picture where overlapping portion are repeated portions of the panoramic picture. Figure 6(a) to 6(e) illustrates different locations for view window 620. At column 5 lines 27-49 describes various degrees of overlap and view window sizes.

A detailed analysis of the claims follows.

Claim 1:

Hashimoto teaches a method for viewing a set of sequential bitmaps (*each video stream is decoded into a bitmap by immersive video decoder 920 since video display circuitry drives a television or computer monitor, column 8 lines 22-32*) comprising:

sequentially playing the set of sequential bitmaps, wherein, each sequential bitmap is offset in time (*the video stream over time is decoded into many sequential bitmaps in order to drive the raster television screen or computer monitor*);

defining a view window (*view window 620*) within each sequential bitmap which defines a portion (*each video stream represents a portion of the whole panoramic picture*) of the sequential bit map under the view window (*see figures 6(a) to 6(e)*); and

allowing the view window to move with respect to the sequential bitmaps as the

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sequential bitmaps are sequentially played (*as the immersive movie is played the user may move the view window*).

Claim 2:

Hashimoto teaches a 360 degree field of view for each bitmap at column 5 lines 28-49 when $N=1$.

Claim 3:

Hashimoto teaches each video stream as having 180 degree field of view, thus, this reference teaches the method of claim 1, wherein each sequential bitmap has a 180 degree field of view.

Claim 4:

At column 8 lines 19-21 Hashimoto teaches using software for the immersive video decoder, this software meets the claimed limitation wherein the view window is defined by a standard viewing software package.

Claim 6:

At column 4 lines 54-55 Hashimoto teaches using cylindrical projection, thus, Hashimoto teaches wherein each sequential bitmap defines a cylindrical space.

Claim 7:

The sequential bitmap derived from each video stream is self-contained.

Claim 8:

Hashimoto teaches a 360 degree field of view for each bitmap at column 5 lines 28-49 when $N=1$. The overlap portion is taught by overlap described at column 5 lines 28-49 and by the viewing angle buffer described at column 5 lines 50-62.

Claim 9:

Hashimoto teaches the overlap portion has a 40 degree field of view at column 5 lines 50-62 because various sizes of view windows are discussed and the overlap portion is dependent upon the view window size and since this claim is an open ended comprising claim 40 degrees is included in the range of view window sizes described at column 5 lines 50-62.

Claim 10:

Hashimoto teaches the overlap is greater than the field of view of the view window, see figure 6.

Claim 11:

Hashimoto teaches a method for viewing an immersive picture (*see the title*) comprising:

defining an immersive picture (*the immersive picture is defined at columns 1 and 2*);

repeating a portion of the content of the immersive picture (*column 5 lines 28-49 describes overlapping and it is clear the overlapped portions are the same, thus, they are repeated*);

storing the repeated portion together with the immersive picture to form an overlapping immersive picture (*video storage medium 914 described at column 7 lines 59-64 stores multiple overlapping video streams, thus, it stores the repeated portion*);

defining a view window (*view window 620*) within the overlapping immersive picture which defines a portion of the overlapping immersive picture under the view window (*see figures 6(a) to 6(e)*); and allowing the view window to move with respect to the overlapping immersive picture (*column 8 lines 29-32*).

Claim 12:

See column 8 lines 29-32 which describes displaying the portion of the overlapping immersive picture defined by the view window.

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Claim 13:

Hashimoto teaches the method of claim 11, further comprising:

allowing the view window to define a first portion (*See figure 6(a) where video stream 540 is used as the source of the bitmap*) of the overlapping immersive picture near a first edge of the overlapping immersive picture as the view window moves towards the first edge (*as view window moves clockwise, see figure 6(b) the window approaches the beginning of video stream 510*); and

causing the view window to define a second portion (*as the view window 620 moves clockwise the source of the bitmap may be either 540 or 510*) of the overlapping immersive picture (*540 overlaps 510 as the view window 620 moves clockwise*) near a second edge (*the end of 540*) of the overlapping immersive picture similar in content to the first portion (*where 540 and 510 overlap the content is similar*) when the view window reaches a first distance from the first edge (*column 5 lines 1-16 describes various methods of switching the source of the bitmap*).

Claim 14:

See the discussion of claim 4 above under this rejection.

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Claim 16:

Hashimoto over time combine many sequential overlapping immersive picture to form an overlapping immersive movie.

Claim 17:

Hashimoto teaches a method for viewing an immersive movie (*see the title*)

comprising:

defining a set of immersive pictures(*the set of immersive pictures forming the movie is defined at columns 1 and 2*);

repeating a portion of the content of each associated immersive picture (*column 5 lines 28-49 describes overlapping and it is clear the overlapped portions are the same, thus, they are repeated*);

storing each repeated portion together with the associated immersive picture to form a set of overlapping immersive pictures (*video storage medium 914 described at column 7 lines 59-64 stores multiple overlapping video streams, thus, it stores the repeated portion and the a set of overlapping immersive pictures is stored to form the movie*);

compiling (*this is a broad term and it is met by the compiling of the video streams into a movie*) the set of overlapping immersive pictures to form an overlapping immersive movie, wherein the overlapping immersive movie is played by sequentially (*inherent to television and computer monitors*) displaying each of overlapping immersive picture in the set of overlapping

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immersive pictures (*doing this over time displays a movie on the television or computer monitor*);

defining a view window within the overlapping immersive movie which defines a portion of the overlapping immersive movie under the view window (*column 8 lines 29-32 describes a user moving the view window during the movie playback to allow the user to view the desired view*); and
allowing the view window to move with respect to the overlapping immersive movie (*as discussed above the user move the view window during movie playback*).

Claim 18:

Hashimoto teaches the method of claim 16, wherein the view window (620) moves with respect to content of the overlapping immersive movie (*see figures 6(a) to 6(e)*) by moving with respect to each overlapping immersive picture when displayed (*as the movie plays the view window will hover over an area of the cylinder defining the movie, as the movie plays over time the location of the view window over the cylinder remains until the user instructs the view window to move*).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeNies, U.S. Patent Application Publication No. 2002/0021353 in view of applications admission of Macromedia™ Flash. DeNies uses Real Player. Applicant uses Macromedia™ Flash. Both are well known viewing software. It would have been obvious to one of ordinary skill in the art to use Macromedia™ Flash as the viewing software in DeNies because they are commercial off the shelf software capable of performing the same functions of receiving a video stream and displaying a movie.

7. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto, U.S. Patent No. 6,567,086, as applied to claim 4 or 14 above in view of applications admission of Macromedia™ Flash. Hashimoto discusses using software at column 8 lines 19-21 for the immersive video decoder. See the discussion of 4 and 14. Applicant claims using Macromedia™ Flash. It would have been obvious to one of ordinary skill in the art to use Macromedia™ Flash as the viewing software in DeNies because to use a commercial off the shelf software is more economical than developing custom software.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeNies, U.S. Patent Application Publication No. 2002/0021353. The human field of vision is

close but not greater than 180 degrees, thus, to have the guard band a bitmap of 180 degrees would have been obvious to one of ordinary skill in the art because this size of bitmap would be necessary to have a guard band.

Claim Objections

9. Claims 17 and 18 are objected to because of the following informalities:

claim 17 line 10 "each of" should be "each"; and

claim 18 line 3 "to a each" should be "to each".

Appropriate correction is required.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A. Brier whose telephone number is (703) 305-4723. The examiner can normally be reached on M-F from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (703) 305-4713).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

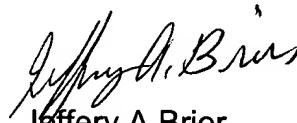
or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

A handwritten signature in black ink, appearing to read "Jeffery A. Brier". The signature is fluid and cursive, with the first name "Jeffery" and last name "Brier" clearly distinguishable.

Jeffery A Brier
Primary Examiner
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